

REMARKS

Claim 7 is deemed by the applicant to provide little additional value in comparison to the other present claims, and has been amended to include the limitation of “said increasing utilizes user preference settings relative to bandwidth limitations to select instructional strategies”. Support for this limitation can be found in the specification on page 16 at lines 6-8. Applicant believes the original language of claim 7 is allowable, for reasons recited below.

Claims 8, 31, 41 and 54 have been amended to include the word “of” after the word “consisting” so as to clarify the language of these claims.

Claims 26 and 36 have been amended to correct a grammatical error, changing “students” to “student's”.

Claim 45 has been amended by adding two commas, intended to clarify this claim.

The amendment to claim 23 is explained below.

Applicant addresses each item of the office action of 2/13/2003:

1. Claim 23 is objected to because its dependency upon itself seems to be a typographical error.

Applicant has amended claim 23 to depend on claim 20, which corrects the condition of the rejection.

2. The examiner recites 35 U.S.C. 112, second paragraph is support of a rejection of claim 7 as being indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention. More particularly, the examiner states that the phrase "performing the information assessment step either prior, during, or after the information presentation step" provides alternate choices and renders the claim indefinite.

Applicant has cancelled claim 7 in order to avoid confusion and otherwise to bring the application into a condition of allowance, but not for any reasons of patentability. Applicant asserts that claim 7 is allowable, for reasons stated below.

3. The examiner recites 35 U.S.C. 102(e) in support of further rejections.
4. Claims 1-22, 24-44, and 46-56 have been rejected under 35 U.S.C. 102(e) as being anticipated by Siefert (USPN 6,386,883 B2). In rejection of claims 1, 14, 20, 26, 36, 46, and 52, Siefert is alleged to disclose a computer-based teaching and evaluation method and system comprising: (1) presenting information to a student using a plurality of instructional strategies (column 9, lines 5-10); (2) assessing the students understanding of the information in each of said strategies (column 9, lines 11 - 14); (3) based on the assessment, determining the success of each of the plurality of instructional strategies in instructing the student during the presentation; and (4) in subsequent information presentations, increasing the use of those instructional strategies having greater success in presenting the information over those strategies having less success (column 9, lines 52-56).

We traverse this rejection, on the grounds that the claim elements of (i) assessing the student's understanding of the information in each of said strategies (for claim 1), (ii) based on the assessment, determining the success of each of the plurality of instructional strategies in instructing the student during the presentation (also claim 1) are not taught by Siefert.

Regarding claim 1: this claim includes the step of "assessing the students understanding of the information in each of said strategies". Siefert col. 9, lines 11-14 discloses an IA that "assesses

whether the RESOURCEs are successfully imparting the knowledge desired to the students.” A resource is distinct from a strategy. If Siefert does not disclose that assessment step, Siefert cannot also disclose the step of “based on the assessment, determining the success of each of the plurality of instructional strategies in instructing the student during the presentation”. We are not aware of any disclosure of assessing students understanding of the information in each of said strategies in Siefert, therefore claim 1 is not anticipated by Siefert.

Regarding claim 14: the examiner makes no reference to disclosure of “evaluating the student's comprehension of the presented information in each of said strategies”. The examiner treats the step of “ranking each of the instructional strategies based on success of the student's comprehension evaluation” in a subsequent rejection, although the applicant asserts that Siefert makes no disclosure of such ranking. The applicant further asserts that Siefert does not disclose the step of “modifying information presentation to the student to favor using selected instructional strategies having a higher ranking over the other instructional strategies”, which is certainly true if Siefert does not disclose the ranking of instructional strategies. Claim 14 is therefore allowable.

Regarding claim 20: claim 20 includes the same limitations as claim 14, with the exception that the “modifying information” step is replaced with the step of “optimizing the presentation of information by increasing the use of those instructional strategies having a higher ranking than the other instructional strategies.” The applicant asserts that Siefert does not disclose that step, which, again, is certainly true if Siefert does not disclose the ranking of instructional strategies. Claim 20 is therefore allowable.

Regarding claim 26: this claim includes the limitations of “a presentation engine”, “a data store”, “an assessment engine” and a “learning management engine”. The examiner makes no attempt to identify disclosure of those limitations in Siefert, and the applicant believes that all of a presentation engine, a data store, an assessment engine and a learning management engine are not

disclosed therein. Claim 26 is therefore not anticipated and is allowable.

Regarding claim 36: this claim includes the limitations of “a presentation engine”, “a display means”, “a data entry means”, “a data store”, “an assessment engine” and a “learning management engine”. The examiner makes no attempt to identify disclosure of those limitations in Siefert, and the applicant believes that all of a presentation engine, a display means, a data entry means, a data store, an assessment engine and a learning management engine are not disclosed therein. Claim 36 is therefore not anticipated and is allowable.

Regarding claim 46: this claim includes the limitations of “a data store”, “data entry means” and a “content development tool”. The examiner makes no attempt to identify disclosure of those limitations in Siefert, and the applicant believes that all of a data store, a data entry means and a content development tool are not disclosed therein. Claim 46 is therefore not anticipated and is allowable.

Regarding claim 52: this claim includes the steps of “defining a course to be presented”, “preparing a plurality of concepts from the course” and “characterizing each concept in at least one of a plurality of instructional strategies, wherein the course presentation can select among the instructional strategies to present to a student based on those strategies that provide the student with the best comprehension over the other strategies.” The examiner makes no attempt to identify disclosure of those limitations in Siefert, and the applicant is not aware of the disclosure of all those limitations therein. Claim 52 is therefore not anticipated and is allowable.

Claims 2, 27, 37, 47 are rejected under 35 U.S.C. 102(e), with allegations that Siefert discloses a method and system comprising: defining a plurality of concepts based on the information being presented (column 16, lines 47-50 and selecting at least one instructional strategy in which to present each concept to the student (column 9, lines 5-10).

Regarding claim 2: applicant traverses the rejection on at least the grounds of claim 1, and further that all the limitations of this claim are not taught by Siefert. Claim 2 is therefore not anticipated by Siefert and allowable.

Regarding claims 27, 37 and 47: these claims include the limitation of “a content development tool”. Applicant traverses the rejection on at least the grounds of claims 26, 37 or 47, and further that a content development tool is not disclosed by Siefert. Claims 27, 37 and 47 are therefore not anticipated and allowable.

Claims 3, 28, 38, 48, and 53 are rejected under 35 U.S.C. 102(e), with allegations that Siefert discloses a method and system further comprising: before presenting the information, defining a plurality of concepts based on the information based on the concepts, generating a content outline of the information; associating a set of assets with each of the plurality of concepts (column 16, lines 47-57).

Regarding claims 3 and 53: applicant traverses this rejection on at least the grounds of claims 1 and 52, and further that all the limitations of this claim are not taught by Siefert. Claims 3 and 53 are therefore not anticipated by Siefert and allowable.

Regarding claims 28, 38 and 48: these claims include the limitation of “a content development tool” that generates a content outline of the information and associates a set of assets in the data store with each of the plurality of concepts. Applicant traverses the rejection on at least the grounds of claims 27, 37 or 47, and further that a content development tool is not disclosed by Siefert. Claims 28, 38 and 48 are therefore not anticipated and allowable.

Claim 4 is rejected under 35 U.S.C. 102(e), with allegations that Siefert discloses a method and system, further comprising providing a summary of each concept (column 16, lines 47-50).

Applicant traverses this rejection on at least the grounds of claim 2, and further that the step of providing a summary of each concept is not taught by Siefert. Siefert at col. 16, lines 47-50 speaks of “learning objectives for the year that will be listed”, but not summaries of concepts. Claim 4 is therefore not anticipated by Siefert and allowable.

Claims 5, 29, and 39 are rejected under 35 U.S.C. 102(e), with allegations that Siefert discloses a method. and system, further comprising: establishing pre-requisites needed by the student to enable the student to view the information (column 8, lines 7-18).

Regarding claim 5: claim 5 includes the step of “establishing pre-requisites needed by the student to enable the student to view the information. Siefert at col. 8, lines 7-18 discloses “assessment in a hierarchical fashion” of a student in a subject, but not the establishment of pre-requisites. The applicant is not aware of disclosure of such establishment. Applicant traverses this rejection on stated grounds and on grounds stated for claim 1, and asserts that claim 5 is not anticipated by Siefert and therefore allowable.

Regarding claims 29 and 39: these claims include an “assessment engine” that “determines whether pre-requisites needed by the student to enable the student to view the information have been satisfied.” Siefert does not disclose an assessment engine, nor an assessment engine that determines whether pre-requisites are satisfied. Applicant traverses this rejection these grounds and on grounds stated for claims 26 and 36; claims 29 and 39 are therefore not anticipated and allowable.

Claims 6, 30, and 40 are rejected under 35 U.S.C. 102(e), with allegations that Siefert discloses a method and system, further comprising generating evaluation instruments utilized in the assessing step to measure competencies relating to a specific concept within the information (See Fig. 2).

Regarding claim 6: figure 2 of Siefert discloses a CLS that “assesses student's mastery of lesson presented”, but does not disclose the generation of evaluation instruments. Claim 6 includes the limitation of “generating evaluation instruments utilized in the assessing step to measure competencies relating to a specific concept within the information.” Applicant is not aware of the disclosure of the generation of evaluation instruments in Siefert. Applicant traverses this rejection on these grounds and on grounds as stated for claim 1; claim 6 is not anticipated and allowable.

Regarding claims 30 and 40: these claims include the limitation of “a content development tool” that can generate evaluation instruments. Applicant traverses the rejection on at least the grounds of claims 27 or 37, and further that a content development tool is not disclosed by Siefert. Again, figure 2 of Siefert does not disclose the generation of evaluation instruments. Claims 30 and 40 are therefore not anticipated and allowable.

Claim 7 is rejected under 35 U.S.C. 102(e), with allegations that Siefert discloses a method and system, comprising performing the information assessment step prior, during, and after the information presentation step (column 8, lines 7-18; column 9, lines 30-35, Fig. 2).

Applicant traverses this rejection on the grounds as stated for claim 1, and further that Siefert does not disclose performing the information assessment step prior, during, and after the information presentation step. Figure 2 of Siefert discloses the step of “CLS runs program which presents lesson according to teaching strategy selected” followed by the step of “CLS assesses student's mastery of lesson presented”, which is not assessment prior, during and after an information presentation step. Neither col. 8, lines 7-18 nor col. 9, lines 30-35 teaches performing an information assessment step prior, during and after an information presentation step. The examiner's cited references do not support the examiner's argument. Claim 7 is not anticipated and therefore allowable.

Claims 8, 31, 41, 49, and 54 are rejected under 35 U.S.C. 102(e), with allegations that Siefert discloses a method and system wherein the instructional strategies are selected from the group comprising problem solving, simulation, and analogy (See Table 4.2; column 16, lines 16-19).

Regarding claim 8: applicant traverses this rejection on the grounds as recited for claim 1, and further that Siefert makes no disclosure of instructional strategies selected from the group comprising problem solving, simulation, and analogy. Table 4.2 discloses a number of “class of learning objectives”; learning objectives are clearly different than instructional strategies. Siefert col. 16, lines 16-19 speaks of guides that provide assistance in the context of an “entry adventure”. Siefert does not teach suggest the group comprising problem solving, simulation and analogy, nor does it suggest the group has any particular importance. Claim 8 is therefore not anticipated and therefore allowable.

Regarding claims 31, 41, 49 and 54: these claims recite instructional strategies selected from the group consisting of abstract, example, problem solving, analogy, discovery, simulation or procedure. The examiner makes no argument concerning this larger group of instructional strategies. Applicant traverses this rejection on the grounds recited for claims 26, 36, 46 and 52 and further that Siefert does not disclose the use of instructional strategies selected from the group consisting of abstract, example, problem solving, analogy, discovery, simulation or procedure. Claims 26, 36, 46 and 52 are therefore not anticipated and allowable.

Claims 10, 33, 43, 51, and 56 are rejected under 35 U.S.C. 102(e), with allegations that Siefert discloses a method and system, further comprising tracking the frequency of use of each instructional strategy (column 16, lines 16-21).

Regarding claims 10 and 56: Siefert col. 16, lines 16-21 discloses “Johnny is frequently asked which of these guides he wants to ask for advice; in this way, the system can determine whether Johnny has a preferred learning style.” That reference discloses a frequent action, but does not

speak of tracking the use of instructional strategies nor tracking the frequency of use thereof. Nowhere in that reference, or elsewhere in Siefert, appears disclosure of tracking the frequency of use. Applicant traverses the rejection on these grounds and on grounds recited for claims 1 and 52. Claims 10 and 56 are therefore not anticipated by Siefert and allowable.

Regarding claims 33, 43, 51: these claims include the limitation of “a content development tool” that can track the frequency of use of each instructional strategy. Applicant traverses the rejection on at least the grounds of claims 27, 37 or 46, and further that a content development tool is not disclosed by Siefert. Claims 33, 43 and 51 are therefore not anticipated and allowable.

Claims 9, 14, 16, 20, 22, 32, 42, 50, 55 are rejected under 35 U.S.C. 102(e), with allegations that Siefert discloses a method and system further comprising assessing the students understanding of presented information using different instructional strategies (column 9, lines 11-14, 52-56); in order to determine the success of each instructional strategy. It is further alleged that although Siefert does not explicitly state that the instructional strategies are rated or ranked, inherently the instructional strategies must be given a rating or a rank in order to identify that one instructional strategy is favorable over another.

Applicant traverses this rejection on the same grounds as for claims 1, 26, 36, 46 and 52 and further that Siefert does not teach the ranking of instructional strategies either explicitly or implicitly. Siefert at col. 9, lines 11-14 teaches an “INTELLIGENT ADMINISTRATOR” that “assesses whether the RESOURCES are successfully imparting the knowledge desired to the students.” Making such an assessment does not involve the ranking of instructional strategies, therefore there is no implicit disclosure. Siefert at col. 9, lines 52-56 teaches the selection of “different teaching strategies, based on ... B) success of previous lessons.” Siefert does not suggest how a choice of teaching strategies should be made, but merely suggests that the success of previous lessons would be an input into that choice. It is improper to read back a later and novel improvement into the Siefert specification.

Further regarding claims 16 and 22, Siefert makes no suggestion of using weighting to rank instructional strategies. These claims are therefore further allowable over Siefert.

Further regarding claim 32 and 42, Siefert makes no suggestion of rating the strength of instructional strategies, or more particularly of an assessment engine that uses rating regarding relative strength of each instructional strategy. These claims are therefore further allowable over Siefert.

Further regarding claims 50 and 55, Siefert makes no suggestion of rating regarding the strength of instructional strategies, or more specifically of rating regarding the relative strength of each instructional strategy. These claims are therefore further allowable over Siefert.

Claims 9, 14, 16, 20, 22, 32, 42, 50, 55 are therefore not anticipated by Siefert and allowable.

Claim 11 is rejected under 35 U.S.C. 102(e), with allegations that Siefert discloses a method and system, further comprising selecting an instructional approach for use under a selected instructional strategy (column 16, lines 1619).

Applicant traverses this rejection on the grounds as for claim 1, and further that Siefert does not disclose the selection of an instructional approach. Siefert at col. 16, lines 16-19 describes a procedure for “determining” whether a student “has a preferred learning style” by presenting an entry adventure. That reference does not teach the selection of an instructional strategy or an instructional approach. Claim 11 is therefore not anticipated by Siefert and allowable.

Claim 12 is rejected under 35 U.S.C. 102(e), with allegations that Siefert discloses a method and system, further comprising preparing at least one, assignment for the student to perform as part of the information presentation step (column 15, lines 48-53).

Applicant traverses this rejection on the grounds as for claim 1, and further that Siefert makes no disclosure regarding the preparation of assignments for the student to perform as part of the information presentation step. Siefert at col. 15, lines 48-53 discloses teachers that “can give assignments within the system to cover different problems that may arise”. By “system” Siefert appears to refer to the system of curricula, including the “Teacher’s Guides containing all the content and resources in the system”. Siefert does not appear to suggest that the assignments are to be made as part of the information presentation step, but rather as an extra-presentation exercise in response to the condition of “the student’s score is still below average” in which “he should be immediately be connected with a teacher for conference”. The teacher conference occurs outside the presentation step, and thus any assignments made would also be outside the presentation step. Claim 12 is therefore not anticipated by Siefert and allowable.

Claims 13 and 35 are rejected under 35 U.S.C. 102(e), with allegations that Siefert discloses a method and system, further comprising assigning a task to an author to develop content for the information to be presented (column 6, lines 26-39; column 15, lines 3-10).

Applicant traverses this rejection on the grounds as for claims 2 and 27, and further that Siefert does not disclose the assignment of tasks to authors to develop content. Siefert col. 6, lines 26-39 speaks of a “CUSTODIAN” that controls access to “RESOURCES” contained in a “REPOSITORY”. That custodian is not disclosed to make assignments. Siefert col. 15, lines 3-10 speaks of “SUBJECT MATTER EXPERTS” who can conference with students. That reference does not disclose the assignments of tasks to authors. Furthermore, claim 35 includes a “content development tool” that allows assignments to be given to authors, however Siefert makes no disclosure of content development tools. Claims 13 and 35 are therefore not anticipated and allowable.

Claims 15 and 21 are rejected under 35 U.S.C. 102(e), with allegations that Siefert discloses a

method and system, further comprising repeating each step of assessing different strategies for new information (See Fig. 3).

Applicant traverses this rejection on grounds as for claims 14 and 20, and further that the examiner's arguments appear to bear upon language not recited in claims 15 and 21. The language "repeating each step of assessing different strategies for new information" is not recited; rather the step of "repeating each step for new information for the student" or "repeating each step for presenting additional information to the student" is. As claims 15 and 21 include the repetition of the steps of independent claims 14 and 20, the absence of disclosure of one or more of those steps renders the Examiner's arguments incorrect. Furthermore, figure 3 of Siefert does not disclose at least increasing the use of instructional strategies having greater success (claim 1) or optimizing the presentation of information by increasing the use of instructional strategies having a higher ranking (claim 20). Claims 15 and 21 are therefore not anticipated by Siefert and allowable.

Claims 18 and 24 are rejected under 35 U.S.C. 102(e), with allegations that Siefert discloses a method and system, further comprising building a profile of a learning style of the student based on the performance of the instructional strategies (column 7, lines 55-59).

Applicant traverses this rejection on grounds as for claims 14 and 20, and further that Siefert does not disclose the building of profiles of learning styles based on the performance of instructional strategies. Siefert col. 7, lines 55-59 speaks of a "student's PROFILE" that "contains an indication of the student's preference" of approach. A student's preference is made prior to the learning process, and is not based on the performance of instructional strategies. Claims 18 and 24 are therefore not anticipated by Siefert, and therefore allowable.

Claims 19 and 25 are rejected under 35 U.S.C. 102(e), with allegations that Siefert discloses a method and system, further comprising utilizing the learning style profile of the student to

determine preferred instructional strategies for presenting information to the student in subsequent teaching sessions (column 9, lines 54-55).

Applicant traverses this rejection on the grounds of claims 18 and 25, in that all the steps of the claimed methods are not disclosed by Siefert. Claims 19 and 25 are therefore not anticipated by Siefert and allowable.

Claim 34 and 44 are rejected under 35 U.S.C. 102(e), with allegations that Siefert discloses a method and system, wherein a presentation engine provides at least one assignment to the student to be performed outside of the learning session (See Fig. 3).

Applicant traverses this rejection on the grounds as for claims 26 and 36, and further that Siefert makes no disclosure of a presentation engine that provides assignments to students to be performed outside of a learning session. Figure 3 of Siefert makes no disclosure regarding assignments, nor does it disclose assignments to be performed outside of a learning session. Claims 34 and 44 are therefore not anticipated by Siefert and allowable.

5. The examiner recites 35 U.S.C. 103(a) in support of further rejections.
6. The examiner references the factual inquiries *set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966)*.
7. Claims 23 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siefert (USPN 6,386,883 B2).

Claim 23 is rejected under 35 U.S.C. 103(a), with allegations that Siefert discloses a method and system wherein information is presented in using various instructional strategies. The examiner states that Siefert does not explicitly state that the instructional strategies are presented in random

order, yet the reference also does not specify a predetermined order of presenting each instructional strategy. It is simply stated that different instructional strategies are attempted (column 9, lines 39-40). It is alleged that at the time of the invention it would have been obvious to a person of ordinary skill in the art to recognize that the functionality of the system provides randomly selected instructional strategies since no predetermined order of presentation is set forth.

Applicant refers to the Manual of Patent Examining Procedure, Eighth Edition, Rev. 1 of Feb. 2003, page 2100-126, in which is stated:

“The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.”

Applicant traverses this rejection on the grounds stated for claim 20 in that all the limitations of that claim are not taught by Siefert, and further that Siefert does not disclose, either explicitly or implicitly, the utilization of instructional strategies in a random pattern of presentation to a student. Siefert at col. 9, lines 39-40 states “When the time falls below the best time by a predetermined amount, say thirty percent, the IA attempts a different teaching strategy.” That reference does not suggest the order in which a different teaching strategy would be chosen, nor does it suggest an advantage or desirability of any particular order. Possible orders include forward in ordinal direction, reverse in ordinal direction, next best performing for the student, next best performing for a group of students, random, pseudo-random, next most frequently used, and many others. Seifert offers no guidance or suggestion as to which of all possible orders would be desirable. An “obvious to try” argument is improper as the basis for a rejection without a suggestion to use a claim element for some benefit. For the above stated reasons, claim 23 is not obvious over Siefert and allowable.

Claim 45 is rejected under 35 U.S.C. 103(a), with allegations that Siefert discloses a system,

wherein the network is a public data network (column 4, lines 64-67), but does not specifically state the Internet. It is the examiner's position that the Internet is a notoriously old and well-known form of a public data network, and furthermore that a web-browser is an old and well-known interface provided to interact within the Internet. It is alleged that at the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the public network described in Siefert, by specifying the Internet as the public data network in order to readily provide access to multiple users in remote locations.

Applicant traverses this rejection on the grounds for claim 36 in that all the limitations of that claim are not taught by Siefert, and further that it would not have been obvious to utilize the Internet or web browsers for the teaching and evaluation system as claimed in claim 36 at the time the invention was made. Even if the Internet and web browsers were well-known at the time of the invention, the examiner, in forming a prima facie case of obviousness, has a burden to show (1) a combination of claim elements in the prior art (2) disclosure of the remaining elements and (3) a motivation to combine the two to produce the combination of claim elements as a whole. Applicant has traversed a rejection on claim 36 above, and has sufficiently shown that all the elements of claim 36 are not disclosed by Siefert, namely a presentation engine, display means, data entry means, data store, assessment engine, and a learning management engine. The applicant further disputes that it would have been obvious to one of ordinary skill in the art to utilize the Internet and web browsers to enable a student to interface with a presentation engine. The examiner provides no evidence for that assertion, making the rejection improper (see MPEP 2144.03). The arguments of rejection fail to show teachings or disclosure of all the limitations of claim 45, and further fail to provide support for the motivation to combine provided in official notice, which are both necessary to show a prima facie case of obviousness. Absent a prima facie case of obviousness, claim 45 is allowable over the arguments of rejection.

For each of the above discussed claims having arguments of rejection under 35 U.S.C. 103 asserted, applicant responds with the above arguments and asserts that a prima facie case of

obvious has not been established for any of the above claims, as for each claim at least one claim limitation is not taught by the citations.

8. Applicant takes note of the prior art made of record and not relied upon that the examiner considers pertinent to applicant's disclosure: L'Allier et al. (USPN 6,039,575).

9. Applicant acknowledges receipt of the contact information of the examiner. The effort, reasonability and cooperation of the examiner in this application are appreciated.

Applicant presents the above arguments of rebuttal, those arguments supporting our belief that the claims as originally filed remain allowable even in light of the Examiner's arguments and cited references. Nevertheless, for the purpose of advancing the application to allowance, applicant has amended the claims, those amendments either providing clarification, rendering explicit what was implicit or correcting grammatical and spelling errors in the originally filed claims.

Respectfully submitted this 18th day of February, 2004.



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